AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): ~~Communication~~ A communication management method for a random access communication network, ~~characterized in that it comprises~~the method comprising:

dividing time intervals ~~(IT)~~ into time slots ~~(T)~~ each associated with an access time slot during which a terminal ~~(UE)~~ can send an access request to the network, and of selected width greater than or equal to the duration of an access request and then divide those time intervals ~~(IT)~~ into sub-intervals ~~(SI)~~ including at least two consecutive time slots and prohibit the terminals from sending access requests during at least one of the access time slots associated with the time slots ~~(T)~~ of each sub-interval at the same time as authorizing them to do so during non-prohibited access time slots,

defining in each sub-interval ~~(SI)~~ a number, at least equal to the number of time slots ~~(T)~~ that ~~it~~ said sub-interval contains, of processing time windows ~~(F)~~ offset in time and of width substantially equal to that of a time slot ~~(T)~~, and

deducing from the window ~~(F)~~ to which a received access request belongs at least one access delay of the requesting terminal ~~(UE)~~ relative to a reference and then sending an acknowledgement message to that requesting terminal ~~(UE)~~ at a moment selected as a function

of that access delay so that ~~it~~ said requesting terminal can receive ~~it~~ said acknowledgement message in a predefined acknowledgement time interval.

2. (currently amended): ~~Method~~ The method according to claim 1, ~~characterized in that~~wherein a reception time of a message transmitted by a terminal ~~(UE)~~ consecutively to the reception of an acknowledgement message sent in response to an access request associated with said message is deduced from said access delay.

3. (currently amended): ~~Method~~ The method according to claim 1, ~~characterized in that~~wherein said access delay is stored in corresponding relationship to an identifier of the requesting terminal ~~(UE)~~ so as to be able to time the reception of each message sent by said terminal ~~(UE)~~.

4. (currently amended): ~~Method~~ The method according to claim 1, ~~characterized in that~~wherein said number of time slots ~~(T)~~ of a sub-interval ~~(SI)~~ is selected so that ~~it~~ said sub-interval corresponds to the maximum spread of the access delays of the terminals ~~(UE)~~ in a coverage area ~~(ZC)~~ of said network.

5. (currently amended): ~~Method~~ The method according to claim 1, ~~characterized in that~~wherein said number of time slots ~~(T)~~ of a sub-interval ~~(SI)~~ is equal to three.

6. (currently amended): ~~Method~~ The method according to claim 5, ~~characterized in that~~wherein the use of two consecutive time slots ~~(TI)~~ of three time slots in each sub-interval ~~(SI)~~ is prohibited.

7. (currently amended): ~~Method~~ The method according to claim 1, ~~characterized in that~~wherein at least certain of said processing time windows ~~(F)~~ have a common limit.

8. (currently amended): ~~Method~~ The method according to claim 1, ~~characterized in that~~wherein certain of said processing time windows ~~(F)~~ have a time overlap.

9. (currently amended): ~~Method~~ The method according to claim 8, ~~characterized in that~~wherein said time overlap is substantially equal to 50%.

10. (currently amended): ~~Method~~ The method according to claim 1, ~~characterized in that~~wherein said time interval ~~(IT)~~ is equal to n times the duration of a radio frame constituting said message associated with an access request, n being greater than or equal to 1.

11. (currently amended): ~~Method~~ The method according to claim 1, ~~characterized in that~~wherein signals representing said access requests are received in parallel over each of the processing time windows ~~(F)~~ of the sub-intervals ~~(SI)~~ so as to deduce in parallel respective windows ~~(F)~~ to which said received signals belong from the access delays of the requesting terminals ~~(UE)~~ relative to said reference, after which acknowledgement messages are sent to said requesting terminals ~~(UE)~~ at times selected as a function of their respective access delays, so that ~~they~~ said requesting terminals are able to receive ~~them~~ said acknowledgement messages in said predefined acknowledgement time interval.

12. (currently amended): ~~Method~~ The method according to claim 1, ~~characterized in that~~wherein signals representing said access requests are received throughout the duration of each sub-interval ~~(SI)~~ and an access delay is associated with each access request received during said sub-interval ~~(SI)~~ as a function of the processing time window ~~(F)~~ during which ~~it~~ said access request was received, after which acknowledgement messages are sent to said requesting terminals ~~(UE)~~ at times selected as a function of their respective access times so that ~~they~~ said requesting terminals can receive ~~them~~ said acknowledgement messages in said pre defined acknowledgement time interval.

13. (currently amended): ~~Communication~~ A communication management device ~~(D)~~ for a base station ~~(SB)~~ of a random access communication network, ~~characterized in that~~

~~it~~wherein the communication management device comprises a processing means ~~(MT) adapted to~~which:

~~divide~~ divides time intervals into time slots ~~(T)~~ each associated with an access time slot during which a terminal ~~(UE)~~ is able to send an access request to the network and of selected width greater than or equal to the duration of an access request,

~~divide~~ divides said time intervals ~~(IT)~~ into sub-intervals ~~(SI)~~ including at least two consecutive time slots ~~(T)~~,

~~designate~~ designates in each sub-interval ~~(SI)~~ at least one prohibited time slot ~~(TI)~~ associated with an access time slot during which the terminals ~~(UE)~~ are prohibited from sending their access requests to the network,

~~define~~ defines in each sub-interval ~~(SI)~~ a number, at least equal to the number of time slots ~~(T)~~ that ~~it~~ said sub-interval contains, of processing time windows ~~(F)~~ offset in time and of width substantially equal to that of a time slot ~~(T)~~, and

in the event of reception of an access request sent by a requesting terminal ~~(UE)~~, ~~deduce~~ deduces from the window ~~(F)~~ to which said access request belongs at least one access delay of the requesting terminal ~~(UE)~~ relative to a reference and then to determine from said access delay a time of sending an acknowledgement message to said requesting terminal ~~(UE)~~ so that ~~it~~ said requesting terminal is able to receive ~~it~~ said acknowledgement message in a predefined acknowledgement time slot.

14. (currently amended): ~~Device~~ The device according to claim 13, ~~characterized in that~~wherein said processing means ~~(MT) are adapted to determine~~determines from said access delay a time of receiving a message sent by a terminal ~~(UE)~~ consecutively to the receipt of an acknowledgement message sent in response to an access request associated with said message.

15. (currently amended): ~~Device~~ The device according to claim 13, ~~characterized in that~~wherein ~~it~~ the device comprises a memory ~~(M) adapted~~, on the instructions of said processing means ~~(MT)~~, ~~to store~~which stores each deduced access delay in corresponding relationship to an identifier of the requesting terminal ~~(UE)~~ and said processing means ~~(MT) are adapted to instruct~~instructs the receive timing of said base station ~~(SB)~~ to be locked to each message sent by a terminal ~~(UE)~~ as a function of the access delay associated with ~~its~~ an identifier of the terminal in said memory ~~(M)~~.

16. (currently amended): ~~Device~~ The device according to claim 13, ~~characterized in that~~wherein said number of time slots ~~(T)~~ of a sub-interval ~~(SI)~~ is selected so that ~~it~~ said sub-interval corresponds to the maximum spread of the access delays of the terminals ~~(UE)~~ situated in a coverage area ~~(ZC)~~ of said network.

17. (currently amended): ~~Device~~ The device according to claim 13, ~~characterized in that~~wherein said number of time slots ~~(T)~~ of a sub-interval ~~(SI)~~ is equal to three.

18. (currently amended): ~~Device~~ The device according to claim 17, ~~characterized in that~~wherein said processing means ~~(MT) are adapted to designate~~designates on command two consecutive prohibited access time slots ~~(TI)~~ of three time slots in each sub-interval ~~(SI)~~.

19. (currently amended): ~~Device~~ The device according to claim 13, ~~characterized in that~~wherein said processing means ~~(MT) are adapted to define~~defines at least certain of said processing time windows ~~(F)~~ so that pairs of ~~them~~ said processing windows have a common limit.

20. (currently amended): ~~Device~~ The device according to claim 13, ~~characterized in that~~wherein said processing means ~~(MT) are adapted to define~~defines at least certain of said processing time windows ~~(F)~~ so that ~~they~~ said processing time windows have a time overlap.

21. (currently amended): ~~Device~~ The device according to claim 20, ~~characterized in that~~wherein said time overlap is substantially equal to 50%.

22. (currently amended): ~~Device~~ The device according to claim 13, ~~characterized in that~~wherein said time interval ~~(IT)~~ is equal to n times the duration of a radio frame constituting said message associated with an access request, n being greater than or equal to one.

23. (currently amended): ~~Device~~ The device according to claim 13, ~~characterized in that~~wherein said processing means ~~(MT) are adapted to receive~~receives signals representing said access requests in parallel over each of the processing time windows ~~(F)~~ of the sub-intervals ~~(SI)~~ so as to deduce in parallel respective windows ~~(F)~~ to which said received signals belong from the access delays of the requesting terminals ~~(UE)~~ relative to said reference, and then to command the sending of acknowledgement messages to said requesting terminals ~~(UE)~~ at times selected as a function of ~~their~~ said requesting terminals respective access delays, so that ~~they~~ said requesting terminals are able to receive ~~them~~ said acknowledgement messages in said predefined acknowledgement time interval.

24. (currently amended): ~~Device~~ The device according to claim 13, ~~characterized in that~~wherein said processing means ~~(MT) are adapted to receive~~ receives signals representing said access requests throughout the duration of each sub-interval ~~(SI)~~ and then to associate an access delay with each access request received during said sub-interval ~~(SI)~~ as a function of the processing time window ~~(F)~~ during which ~~it~~ said access request was received, and then to command the sending of acknowledgement messages to said requesting terminals ~~(UE)~~ at times selected as a function of ~~their~~ said requesting terminals respective access delays so that ~~they~~ said requesting terminals can receive ~~them~~ said acknowledgement messages in said predefined acknowledgement time interval.

25. (currently amended): ~~Base~~ A base station ~~(SB)~~ for a random access communication network, ~~characterized in that it comprises at least one~~comprising a communication management device ~~(D) according to claim 13~~, wherein said communication management device comprises a processing means which:

divides time intervals into time slots each associated with an access time slot during which a terminal is able to send an access request to the network and of selected width greater than or equal to the duration of an access request,

divides said time intervals into sub-intervals including at least two consecutive time slots,

designates in each sub-interval at least one prohibited time slot associated with an access time slot during which the terminals are prohibited from sending their access requests to the network,

defines in each sub-interval a number, at least equal to the number of time slots that said sub-interval contains, of processing time windows offset in time and of width substantially equal to that of a time slot, and

in the event of reception of an access request sent by a requesting terminal, deduces from the window to which said access request belongs at least one access delay of the requesting terminal relative to a reference and then to determine from said access delay a time of sending an acknowledgement message to said requesting terminal so that said requesting terminal is able to receive said acknowledgement message in a predefined acknowledgement time slot.

26. (currently amended): ~~Use of the~~The ~~communication management~~ method according to claim 1, wherein the random access communication network is ~~for~~ a 3G type communication network having a 3G type communication terminal ~~communication management~~.

27. (currently amended): ~~Use~~ The method according to claim 26, ~~characterized in that~~wherein said 3G communication ~~terminals~~ terminal ~~are~~ is a UMTS type 3G communication terminal ~~networks~~ operating in frequency duplex mode.

28. (currently amended): ~~Use~~ The method according to ~~either~~ claim 26, ~~characterized in that~~wherein said ~~communications take place in~~random access communication network includes a satellite ~~type random access communication networks~~.

29. (currently amended): ~~Use~~ The method according to claim 26, ~~characterized in that~~wherein said ~~communications take place in~~random access communication network is a random access communication networks ~~with~~ including a radio relay ~~stations~~ station coupled to a base station.

30. (currently amended): ~~Use~~ The device~~of the communication management device (D)~~ according to claim 13, wherein the random access communication network is ~~for~~ a 3G type communication network having a 3G type communication terminal ~~communication management~~.

31. (currently amended): ~~Use of the~~The base station ~~(SB)~~ according to claim 25, wherein the random access communication network is a 3G type communication network having a 3G type communication terminal ~~communication management~~.